IN THE CLAIMS:

1   1.   (Original) A display apparatus for displaying an image on a display device which

2   includes rows of pixels, each pixel composed of three sub-pixels that align in a lengthwise

3   direction of the pixel rows and emit light of three primary colors respectively, the display

4   apparatus comprising:

5   a front image storage unit operable to store color values of sub-pixels that

6   constitute a front image to be displayed on the display device;

7   a calculation unit operable to calculate a dissimilarity level of a target sub-pixel to

8   one or more sub-pixels that are adjacent to the target sub-pixel in the lengthwise direction of the

9   pixel rows, from color values of first-target-range sub-pixels composed of the target sub-pixel

10   and the one or more adjacent sub-pixels stored in the front image storage unit;

11   a superimposing unit operable to generate, from color values of the front image

12   stored in the front image storage unit and color values of an image currently displayed on the

13   display device, color values of sub-pixels constituting a composite image of the front image and

14   the currently displayed image;

15   a filtering unit operable to smooth out color values of second-target-range sub-

16   pixels of the composite image that correspond to the first-target-range sub-pixels, by assigning

17   weights, which are determined in accordance with the dissimilarity level, to the second-target-

18   range sub-pixels; and

19   a displaying unit operable to display the composite image based on the color

20   values thereof after the smoothing out.

1   2.   (Original) The display apparatus of Claim 1, wherein

2   the calculation unit calculates a temporary dissimilarity level f or each

3   combination of the first-target-range sub-pixels, from color values of the first-target-range sub-

4   pixels, and regards a largest temporary dissimilarity level among results of the calculation to be

5   the dissimilarity level.

1   3.   (Original) The display apparatus of Claim 2, wherein

2   the first-target-range sub-pixels and the second-target-range sub-pixels are

3   identical with each other in number and positions in the display device.

1   4.   (Original) The display apparatus of Claim 1, wherein

2   the filtering unit performs the smoothing out of the second-target-range sub-pixels

3   if the dissimilarity level calculated by the calculation unit is greater than a predetermined

4   threshold value, and does not perform the smoothing out if the calculated dissimilarity level is no

5   greater than the predetermined threshold value.

1   5.   (Original) A display apparatus for displaying an image on a display device which

2   includes rows of pixels, each pixel composed of three sub-pixels that align in a lengthwise

3   direction of the pixel rows and emit light of three primary colors respectively, the display

4   apparatus comprising:

5   a front image storage unit operable to store color values and transparency values

6   of sub-pixels that constitute a front image to be displayed on the display device, where the

7   transparency values indicate degrees of transparency of sub-pixels of the front image when the

8   front image is superimposed on an image currently displayed on the display device;

9   a calculation unit operable to calculate a dissimilarity level of a target sub-pixel to

10 one or more sub-pixels that are adjacent to the target sub-pixel in the lengthwise direction of the

11 pixel rows, from at least one of (i) color values and (ii) transparency values of first-target-range

12 sub-pixels composed of the target sub-pixel and the one or more adjacent sub-pixels stored in the

13 front image storage unit;

14   a superimposing unit operable to generate, from color values of the front image

15 stored in the front image storage unit and color values of the image currently displayed on the

16 display device, color values of sub-pixels constituting a composite image of the front image and

17 the currently displayed image;

18   a filtering unit operable to smooth out color values of second-target-range sub-

19 pixels of the composite image that correspond to the first-target-range sub-pixels, by assigning

20 weights, which are determined in accordance with the dissimilarity level, to the second-target-

21 range sub-pixels; and a displaying unit operable to display the composite image based on the

22 color values thereof after the smoothing out.

1   6. (Original) The display apparatus of Claim 5, wherein

2   the calculation unit calculates a temporary dissimilarity level for each

3 combination of the first-target-range sub-pixels, from at least one of (i) color values and (ii)

4 transparency values of the first-target-range sub-pixels, and regards a largest temporary

5 dissimilarity level among results of the calculation to be the dissimilarity level.

1   7. (Original) The display apparatus of Claim 6, wherein

2   the first-target-range sub-pixels and the second-target-.range sub-pixels are

3 identical with each other in number and positions in the display device.

1   8.   (Original) The display apparatus of Claim 5, wherein

2   the filtering unit performs the smoothing out of the second-target-range sub-pixels

3 if the dissimilarity level calculated by the calculation unit is greater than a predetermined

4 threshold value, and does not perform the smoothing out if the calculated dissimilarity level is no

5 greater than the predetermined threshold value.

1   9.   (Original) A display method for displaying an image on a display device which

2 includes rows of pixels, each pixel composed of three sub-pixels that align in a lengthwise

3 direction of the pixel rows and emit light of three primary colors respectively, the display method

4 comprising:

5   a front image acquiring step for acquiring color values of first-target-range sub-

6 pixels composed of a target sub-pixel and one or more sub-pixels that are adjacent to the target

7 sub-pixel in the lengthwise direction of the pixel rows, the first-target--range sub-pixels are

8 included in sub-pixels that constitute a front image to be displayed on the display device;

9   a calculation step for calculating a dissimilarity level of the target sub-pixel to the

10 one or more sub-pixels, from the color values of the first-target-range sub-pixels acquired in the

11 front image acquiring step;

12   a superimposing step for generating, from the color values of the front image

13 acquired in the front image acquiring step and color values of an image currently displayed on

14 the display device, color values of sub-pixels constituting a composite image of the front image

15 and the currently displayed image;

16   a filtering step for smoothing out color values of second-target-range sub-pixels

17 of the composite image that correspond to the first-target-range sub-pixels, by assigning weights,

18   which are determined in accordance with the dissimilarity level, to the second-target-range sub-

19   pixels; and

20   a displaying step for displaying the composite image based on the color values

21   thereof after the smoothing out.

1   10.   (Original) A display method for displaying an image on a display device which

2   includes rows of pixels, each pixel composed of three sub-pixels that align in a lengthwise

3   direction of the pixel rows and emit light of three primary colors respectively, the display method

4   comprising:

5   a front image acquiring step for acquiring color values and transparency values of

6   first-target-range sub-pixels composed of a target sub-pixel and one or more sub-pixels that are

7   adjacent to the target sub-pixel in the lengthwise direction of the pixel rows, the first-target-range

8   sub-pixels are included in sub-pixels that constitute a front image to be displayed on the display

9   device, where the transparency values indicate degrees of transparency of sub-pixels of the front

10   image when the front image is superimposed on an image currently displayed on the display

11   device;

12   a calculation step for calculating a dissimilarity level of the target sub-pixel to the

13   one or more sub-pixels, from at least one of the (i) color values and (ii) transparency values of

14   the first-target-range sub-pixels acquired in the front image acquiring step;

15   a superimposing step for generating, from the color values of the front image

16   acquired in the front image acquiring step and color values of the currently displayed image,

17   color values of sub-pixels constituting a composite image of the front image and the currently

18   displayed image;

19   a filtering step for smoothing out color values of second-target-range sub-pixels

20   of the composite image that correspond to the first-target-range sub-pixels, by assigning weights,

21   which are determined in accordance with the dissimilarity level, to the second-target- range sub-

22   pixels; and a displaying step for displaying the composite image based on the color values

23   thereof after the smoothing out.

1   11.   (Currently Amended) A computer-readable recording medium storing a display

2   program for displaying an image on a display device which includes rows of pixels, each pixel

3   composed of three sub-pixels that align in a lengthwise direction of the pixel rows and emit light

4   of three primary colors respectively, the display program causing a computer to execute:

5   a front image acquiring step for acquiring color values of first-target- range sub-

6   pixels composed of a target sub-pixel and one or more sub-pixels that are adjacent to the target

7   sub-pixel in the lengthwise direction of the pixel rows, the first-target-range sub-pixels are

8   included in sub-pixels that constitute a front image to be displayed on the display device;

9   a calculation step for calculating a dissimilarity level of the target sub-pixel to the

10   one or more sub-pixels, from the color values of the first-target-range sub-pixels acquired in the

11   front image acquiring step;

12   a superimposing step for generating, from the color values of the front image

13   acquired in the front image acquiring step and color values of an image currently displayed on

14   the display device, color values of sub-pixels constituting a composite image of the front image

15   and the currently displayed image;

16   a filtering step for smoothing out color values of second-target-range sub-pixels

17   of the composite image that correspond to the first-target-range sub-pixels, by assigning weights,

18 which are determined in accordance with the dissimilarity level, to the second-target- range sub-

19 pixels; and

20   a displaying step for displaying the composite image based on the color values

21 thereof after the smoothing out.

1   12.   (Currently Amended) A <u>computer-readable recording medium storing a</u> display

2   program for displaying an image on a display device which includes rows of pixels, each pixel

3   composed of three sub-pixels that align in a lengthwise direction of the pixel rows and emit light

4   of three primary colors respectively, the display program causing a computer to execute:

5   a front image acquiring step for acquiring color values and transparency values of

6   first-target-range sub-pixels composed of a target sub-pixel and one or more sub-pixels that are

7   adjacent to the target sub-pixel in the lengthwise direction of the pixel rows, the first-target-range

8   sub-pixels are included in sub-pixels that constitute a front image to be displayed on the display

9   device, where the transparency values indicate degrees of transparency of sub-pixels of the front

10 image when the front image is superimposed on an image currently displayed on the display

11 device;

12   a calculation step for calculating a dissimilarity level of the target sub-pixel to the

13 one or more sub-pixels, from at least one of the (i) color values and (ii) transparency values of

14 the first-target-range sub-pixels acquired in the front image acquiring step;

15   a superimposing step for generating, from the color values of the front image

16 acquired in the front image acquiring step and color values of the currently displayed image,

17 color values of sub-pixels constituting a composite image of the front image and the currently

18 displayed image;

19   a filtering step for smoothing out color values of second-target-range sub-pixels

20   of the composite image that correspond to the first-target-range sub-pixels, by assigning weights,

21   which are determined in accordance with the dissimilarity level, to the second-target- range sub-

22   pixels; and

23   a displaying step for displaying the composite image based on the color values

24   thereof after the smoothing out.

1   13.   (New) A display apparatus for displaying an image on a display device which

2   includes rows of pixels, each pixel composed of three sub-pixels, that align in a lengthwise

3   direction of the pixel rows and emit light of three primary colors respectively, the display

4   apparatus comprising:

5   a front image storage unit operable to store color values of sub-pixels that

6   constitute a front image to be displayed on the display device;

7   a target sub-pixel emitting a primary color in the front image with a first color

8   value associated with it;

9   a second sub-pixel emitting the same primary color as the target sub-pixel with a

10   second color value associated with it, wherein the second sub-pixel is adjacent to the target sub-

11   pixel in the lengthwise direction of the pixel rows in the front image;

12   a calculation unit operable to calculate a dissimilarity level of the target sub-pixel

13   and at least one second sub-pixel using the first color value and the second color value;

14   a superimposing unit operable to generate, from color values of the front image

15   stored in the front image storage unit and color values of an image currently displayed on the

16   display device, color values of sub-pixels constituting a composite image of the front image and

17   the image currently displayed;

18   a third sub-pixel emitting the same primary color as the target sub-pixel with a

19   third color value associated with it, wherein the third sub-pixel is located in the composite image

20   and the third sub-pixel corresponds in location with the target sub-pixel;

21   a filtering unit operable to smooth out the color value of the third sub-pixel, by

22   assigning a weight to the color value of the third sub-pixel, wherein the weight is determined in

23   accordance with the dissimilarity level; and

24   a displaying unit operable to display the composite image based on the color

25   value of the sub-pixels within the composite image after the color values of the sub-pixels within

26   the composite image have been smoothed out by the filtering unit.

1   14.   (New) A display apparatus for displaying an image on a display device which

2   includes rows of pixels, each pixel composed of three sub-pixels, that align in a lengthwise

3   direction of the pixel rows and emit light of three primary colors respectively, the display

4   apparatus comprising:

5   a front image storage unit operable to store color values and transparency values

6   of sub-pixels that constitute a front image to be displayed on the display device, wherein the

7   transparency values indicate degrees of transparency of sub-pixels of the front image when the

8   front image is superimposed on an image currently displayed on the display device;

9   a target sub-pixel emitting a primary color in the front image with a first color

10   value and a first transparency value associated with it;

11   a second sub-pixel emitting the same primary color as the target sub-pixel with a

12 second color value and a second transparency value associated with it, wherein the second sub-

13 pixel is adjacent to the target sub-pixel in the lengthwise direction of the pixel rows in the front

14 image;

15   a calculation unit operable to calculate a dissimilarity level of the target sub-pixel

16 and at least one second sub-pixel using at least one of (i) the first color value and the second

17 color value or (ii) the first transparency value and the second transparency value;

18   a superimposing unit operable to generate, from color values of the front image

19 stored in the front image storage unit and color values of the image currently displayed on the

20 display device, color values of sub-pixels constituting a composite image of the front image and

21 the image currently displayed;

22   a third sub-pixel emitting the same primary color as the target sub-pixel with a

23 third color value associated with it, wherein the third sub-pixel is located in the composite image

24 and the third sub-pixel corresponds in location with the target sub-pixel;

25   a filtering unit operable to smooth out the color value of the third sub-pixel, by

26 assigning a weight to the color value of the third sub-pixel, wherein the weight is determined in

27 accordance with the dissimilarity level; and

28   a displaying unit operable to display the composite image based on the color

29 value of the sub-pixels within the composite image after the color values of the sub-pixels within

30 the composite image have been smoothed out by the filtering unit.